

City of Scottsdale Signal Questions

Why does Scottsdale have 'lagging left turn arrows', while other Valley cities have leading left turn arrows'?

The City of Tucson has had lagging left turn arrows since 1984. Scottsdale tested lagging arrows in 1988, and discovered that this signal operation resulted in less delay and fewer accidents in our community. They were implemented citywide in 1989.

Lagging left turn arrows do not work well at all intersections or in all communities. Most communities have major streets every half-mile in all directions. Scottsdale has only three major north/south streets. Therefore we have large left turn volumes at all intersections, whereas other communities do not have as much left turn demand. Scottsdale also has more closely spaced traffic signals than other communities.

How does a traffic signal know if a car is present?

There is a wire in the pavement behind the crosswalk called a loop detector. The wire creates an electric field in the air above the pavement. When a large object interrupts the electric field, the signal knows that a vehicle is present and will provide a green light. During peak travel times, the wait will be a maximum of two minutes. During non-peak travel times, the wait is a maximum of 90 seconds.

Some people think that if they back up and drive forward again, they will make the signal change quicker. This does not work. The mechanism does not count the number of vehicles waiting.

At some locations, motorcycles or "high-rider" vehicles will not be able to interrupt the electrical field. If this occurs, please note the street, the intersection, the lane, and the time of day; and call Dan Edwards at 480-312-5637. Dan will inspect the intersection and make every effort to correct it.

Some people feel that if they get out of their car and push the pedestrian button, they will get the green light quicker. They will not. The pedestrian push-button does not make the green light come on sooner. It does make the green light longer. It takes longer for a person to walk across a street than it takes for a car to drive across a street.

Why is the WALK light so short, and the flashing DON'T WALK light so long?

The flashing DON'T WALK signal for pedestrians is similar to a yellow light for vehicles. If a person has started to finish crossing a street and the flashing light appears, they will have time to cross the street. If the flashing DON'T WALK signal appears and a person has not started to cross the street, they should wait for the next WALK.

At some intersections, the WALK signal will not appear unless the pedestrian push button is pushed.

At some intersections, there is not a pedestrian push button because the WALK signal will automatically appear with the main street green light.

Why do some intersections have red left turn arrows and others allow left turns on the green light for through traffic?

Red left turn arrows typically can reduce the potential for left turn collisions. However, they also typically increase the potential for rear end collisions. Allowing left turns on the green light for through traffic reduces delay. We use red left turn arrows only at locations where there is a historic safety problem or a situation that presents a greater than reasonable potential for a safety problem.

Most signalized intersections allow left turns on the green light for through traffic when the left turn arrows are first installed. At locations where there was a history of accidents involving left turning vehicles, the signal is modified to have red left turn arrows. The intersections of Hayden/Thomas, Hayden/McDonald, Scottsdale/Doubletree, and Scottsdale/Shea are examples of this situation.

At intersections where there are two left turn lanes in opposite directions, the red left turn arrows are used. Two cars attempting to turn left side-by-side make it difficult for both drivers to see oncoming traffic. The red left turn arrow prevents this situation. This condition exists at Scottsdale/McDowell, Hayden/McDowell, and Scottsdale/Thomas.

Whenever there is poor visibility of oncoming traffic for drivers in left turning vehicles, because of roadway curvature, then red left turn arrows are used. This is the situation at Hayden/Camelback and Hayden/Chaparral.

When the speed limit is high, drivers making left turns can sometimes seriously misjudge the speed of oncoming traffic. Often red left turn arrows are used when the speed limit is 50 or 55 miles per hour. This condition exists at Pima/Cactus and Pima/Frank Lloyd Wright.